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ABSTRACT

A study focused on technical communication teachers in two-year institutions nationwide, expanding a previous study (1984-85) concerning the teaching of technical communication in two-year colleges. "Contact persons" at 100 colleges randomly selected from a list of 565 extracted from the previous study, completed a questionnaire and distributed questionnaires to all persons (including part-time faculty) who teach technical communication in their college. Results indicated that the composite technical communication teacher in a two-year college (1) teaches in an institution with a semester, rank, and tenure system; (2) is likely to be a tenured associate or full professor and teaching full time; (3) has undergraduate and graduate degrees in English; (4) earns \$24,500; (5) is middle-aged; (6) is as likely to be female as male; and (7) is Caucasian. Findings also show that these teachers earn considerably lower salaries than their colleagues in other disciplines, and have extensive classroom experience and heavy work loads. They view experience in the workplace as helpful in teaching, but participate infrequently in professional application of technical communication (publishing, editing, consulting, or giving presentations), though they participate frequently in informal development activities. The ranks of technical communication teachers include extremely qualified part-time teachers, and overall they seem to be hard-working, dedicated persons committed to the teaching of technical communication. (Fifteen tables of data, references, and a sample questionnaire are appended.) (NKA)

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TEACHERS OF TECHNICAL COMMUNICATION IN TWO-YEAR COLLEGES: A STATUS REPORT¹

by

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The teaching of technical communication is evolving and growing as a field; in fact, in the English curriculum the degree program most likely to have grown in recent years is technical communication (Association of Departments of English 41). However, the teachers of technical communication are typically not graduates of technical communication programs. If teachers are not trained through formal programs, where do they get their training? Questions arise concerning what are appropriate and useful kinds of preparation: What are helpful kinds of teaching and non-teaching work experience? What are helpful kinds of formal and informal preparation? What kinds of professional activities do technical communication teachers participate in? A review of professional literature shows that little research has been done, particularly at the two-year college level, that would answer these questions.

This study, expanding our 1984-85 research concerning the teaching of technical communication in two-year colleges,² focuses on the teachers of technical communication in two-year institutions nationwide. It will be linked with a similar study in four-year institutions to be conducted by Marilyn Schauer Samuels of Case Western Reserve University, Donald W. Cunningham of Texas Tech University, and Donald E. Zimmerman of Colorado State University. These in-depth studies at both the two-year and four-year levels will provide valuable data for analysis and comparison; moreover, they should begin to answer some of the questions concerning preparation of technical communication teachers.

METHODOLOGY

Our 1984-85 study established that the total number of two-year colleges in the United States was 1202. From that group we received a 75 percent response, providing data to describe the technical communication courses offered at 565 two-year colleges, particularly focusing on where and how technical communication was taught.

For our focus on the teachers of technical communication in our current research, we began with the existing data base of "contact persons" who had responded to the 1984-85 survey. We mailed questionnaires to the contact persons at 100 colleges randomly selected from that list of 565, stratified by type and geographical location.³

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This sample should provide a reasonably clear picture of teachers of technical communication for the academic year 1986-1987.

These 100 contact persons were asked to return a completed questionnaire and distribute questionnaires to all persons, including part-time faculty, who teach technical communication at their colleges. That survey produced 136 completed questionnaires from 87 different institutions.⁴ All of the institutions in the sample offer technical communication as a service course; in addition, 8 institutions (with 17 respondents) offer an associate degree or a certificate or both in technical communication.

The survey instrument (see Appendix) consisted of 21 questions with 86 items, designed to assess each respondent's personal characteristics, work load, credentials, preparation, experience, professional activities, and professional status. In addition, the survey assessed attitudes toward preparatory experiences, personal qualifications, and commitment to the field.

To analyze the extensive data received, we first categorized the returned questionnaires according to the respondents' part-time or full-time status, then tallied and averaged responses to create 15 tables presenting our findings. Although additional analysis is possible with these data, we established who the teachers of technical communication are and what experiences they consider most helpful as preparation to teach technical communication.

OVERVIEW

The following text analyzes selected data from the study, grouped according to the following headings: Demographic Characteristics, Teaching Experience, Work Load, Circumstances of Initially Teaching Technical Communication, Helpful Kinds of Preparation, Helpful Kinds of Experience, Professional Application of Technical Communication, Related Development Activities, and Professional Attitudes.

DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

The composite teacher of technical communication in a two-year college teaches in an institution on a semester system, is a full-time teacher, has undergraduate and graduate majors in English, earns \$24,500, is middle-aged, is as likely to be female as male, is Caucasian, teaches in an institution with a rank system and is likely to be a full professor or an associate professor, teaches in an institution with a tenure system, and is tenured.

The data and analyses that follow provide the specifics from which this composite was derived.

Type of Academic Year

A slight majority, 54.8 percent, or 73 of the 133 respondents, teach in an institution with a semester system. Almost half, 44.3 percent, or 59 of the respondents, teach in an institution with a quarter system. Only .7 percent, 1 respondent, teaches in an institution with a trimester system.

Full-Time/Part-Time Status

Inclusion of part-time teachers we think to be particularly important not only because of their large number in two-year colleges but also because part-time teachers are typically not included in a study such as this.

In our total sample of 136 respondents, 83.8 percent (114 persons) are full-time teachers; 16.1 percent (22 persons) are part-time teachers.

Nationally, 59.1 percent of the faculty in two-year colleges are part-time (AACJC 20).⁵

Majors: Undergraduate, Master's, Doctoral

As one would expect, a majority of technical communication teachers have majors in English, as shown in Table 1. For both full-time and part-time teachers, the percentages of persons with a major in English increase from undergraduate to master's to doctoral levels.

For the most part, these are presumably traditional majors in English. It is interesting to note, however, that at the master's and doctoral levels there is some departure from the traditional, as pointed out in notes e, f, and h. Five persons out of the total of 135, or 3.7 percent, have graduate majors in technical writing. Another 10 persons, or 7.4 percent, have graduate majors in rhetoric, composition, or literature/composition. Thus 11 percent of these teachers have had considerable formal preparation in the teaching of writing.

The welcomed departure from the traditional literature degree, to include a composition/rhetoric component, William E. Rivers explains in his research findings, is the combination of emphases that English departments are looking for when they hire people to teach business and technical writing (92-95).

Highest Degree

As expected at the two-year-college level, by far the highest degree of most teachers is the master's, as depicted in Table 2.

Overall, there was a very small percentage (2.2 percent) with only a bachelor's degree (typically a minimum qualification to teach an academic subject in an accredited two-year college is a master's degree). The master's is the highest degree for 75.7 percent of the respondents, and 22 percent have a doctorate. However, the educational factor becomes more positive when notes a and b are considered. The two education specialist degrees and the nine ABD's (All But Dissertation)--8 percent of the total--are really closer to a doctorate than to a master's.

Salary

For full-time teachers the average salaries (adjusted to a nine-month basis) for 1986-87 were as follows:

ALL	MALES	FEMALES
\$24,447	\$26,827 (44 respondents)	\$22,334 (50 respondents)

Here, as in other disciplines and other professions (American Association of University Professors 3,6), males receive higher salaries than females.

The salaries ranged from a low of \$14,994 to a high of \$43,200.

The reporting of pay for part-time teachers was too incomplete to give any reliable picture.

Nationwide, the average salary for all full-time two-year college faculty in 1986-87 was \$30,817, according to information extrapolated from American Association of University Professors data (16). Thus, the salaries of technical communication teachers are 20.6 percent below the national average.

Age, Gender, Race

The survey instrument asked for the respondent's date of birth, gender, and race. These data would help in giving an overall view of the "who" in the teaching of technical communication at the two-year-college level.

Age. Technical communication teachers--both full-time and part-time--are typically middle-aged, as shown below.

FULL-TIME		PART-TIME	
Mean	Range	Mean	Range
45.8 yrs	29-66 yrs	42.1 yrs	25-53 yrs

Gender. In two-year colleges, according to our respondents, there is an almost equal distribution of males (50.3 percent) and of females (49.6 percent) teaching technical communication, as shown in Table 3. For part-time faculty, the males show a slight preponderance (54.5 percent) over females (45.4 percent).

Race. The teachers of technical communication in two-year colleges are predominantly Caucasian--87.7 percent of them in this sample, as shown in Table 4. Only 3.6 percent of the teachers are other than Caucasian; these include blacks and Asians. Eight percent of those surveyed did not respond to the question regarding race.

Rank and Tenure

While formal systems of rank and tenure are an integral aspect of academia in four-year colleges and universities, such systems do not exist in many two-year colleges. Further, rank and tenure ordinarily pertain only to full-time faculty.

Rank. As shown in Table 5, about two-thirds, 68.2 percent, of the full-time teachers indicated that their institutions have a rank system.

In the institutions with rank systems, slightly more than half, 51.8 percent, of the teachers of technical communication in our sample are either full professors or associate professors.

Tenure. Slightly more than two-thirds, 67.5 percent, of the full-time teachers reported that their institutions have a formal tenure system, as shown in Table 6.

Of those institutions that have a tenure system, 81.3 percent of the respondents have tenure.

Nationwide, according to figures extrapolated from American Association of University Professors data, 73.3 percent of the faculty in two-year colleges are tenured (16).

The high percentage of tenured teachers of technical communication is probably related to the high rank, to the middle age, and to the many years of teaching experience (discussed below) of the teachers in our sample. These findings suggest that technical communication is a serious subject and that the teaching of technical communication at the two-year-college level is in the hands of established, continuing professionals.

TEACHING EXPERIENCE

Establishing a clear profile of teachers of technical communication requires an analysis of the teachers' classroom experience. Thus, the survey contained three questions on teaching experience to determine the number of years of classroom experience, the number of years of teaching technical communication, and the number of years of employment at the individual's college.

The data in Table 7 show that full-time technical communication teachers have been teaching an average of 17.1 years with a range of 2 to 34 years, while part-time technical communication teachers averaged 11.8 years with a range of 1 to 27 years.

Two conclusions emerge. First, full-time technical communication teachers in two-year colleges have, on the average, extensive experience in the classroom. Moreover, even part-time faculty have substantial teaching experience. (As discussed later under the heading "Professional Attitudes," part-time teachers perceive themselves as both highly qualified and highly committed to teaching technical communication.)

Our findings cause us to question the image held by many persons that part-timers are necessarily transient, temporary, and inexperienced. In fact, with a seeming rise in numbers of part-time faculty across the country, especially in the larger community colleges, the mere size of this group may warrant these professionals a second look.

As we expected, most respondents had been teaching technical communication fewer years than they had been in the classroom, 7.8 years of teaching of technical communication for full-timers and 4.6 years for part-timers. These numbers suggest that most technical communication teachers began their teaching careers in other fields and retrained when the demand for technical communication courses increased.

Technical communication teachers are generally a stable employment group, with full-time teachers reporting a mean of 11.2 years at their present college. Part-timers, as expected, reported fewer years, a mean of 6.1 years, at their present colleges. Among the possible explanations for the fewer number of years of part-timers is that some of them may gain full-time employment at their colleges when openings occur.

WORK LOAD

Many variables determine the work load of all teachers: the number of classes taught per term, the total number of students taught, the

number of different preparations per term, and the time consumed by non-teaching duties.

The report on the Association of Departments of English 1983-84 research states that the average teaching load in the two-year colleges sampled was about 14 hours per quarter or semester, repeatedly termed "heavy" in the report (45). Likewise, our research revealed that the class load of technical communication teachers is somewhat heavy. As Table 8 shows, the full-time teachers reported a mean of 4.6 classes per term, ranging from 1 to 8. This mean translates to 15.7 hours per quarter or semester.

The number of classes taught per term presents a clearer picture of work load when examined in terms of total number of students taught. Full-time respondents reported 101 students per term with a range of 15 to 250; the approximate student load of 60 reported by part-timers is proportional to the full-time load (see Table 8).

Another consideration of work load is the number of different preparations, or different courses, taught per term. As Table 8 indicates, full-time teachers reported a mean of 3.2 different preparations per typical term.

As a complement to this information, we asked respondents to list the courses, other than technical communication, they typically taught in a calendar year. Although most respondents listed other writing courses, literature, and developmental studies, one-third of full-time respondents reported teaching courses other than English. Speech and journalism were the typical "other courses" besides English courses. The ADE study revealed that over 50 percent of two-year colleges sampled administered speech and journalism within the English department (28). Thus, such courses may sometimes be considered normal inclusions in an English teacher's schedule.

However, in our survey, 12 respondents (10.5 percent) reported teaching courses not typically offered in English departments, such as physics, office machines, and accounting. These findings support one of the conclusions of our 1984-85 research, which asserted that 19 percent of responding institutions offered technical communication in departments other than English (Pickett and Angelo, ERIC).

Finally, the mean number of technical communication courses taught by individual respondents was 1.5 for both full-timers and part-timers, as shown in Table 8. Since our 1984-85 study established that the mean number of technical communication courses offered at two-year colleges nationwide is 1.69 (Pickett and Angelo, ERIC) and since the mean number of different technical communication courses taught by persons in the present study is 1.5, very probably most of the persons in the present study teach each of the courses in technical communication offered at their institution.

These data establish that many teachers of technical communication have extensive teaching responsibilities and large numbers of students. In addition to teaching responsibilities, however, 14 percent of the full-time respondents reported having administrative duties, such as chairing departments or divisions or directing major programs. Clearly, our "typical" technical communication teachers have heavy work loads with numerous demands on their time and expertise.

CIRCUMSTANCES FOR INITIALLY TEACHING TECHNICAL COMMUNICATION

To help determine the "why" of who teaches technical communication, we asked persons to indicate the circumstances under which they began teaching technical communication. The responses are given in Table 9.

Almost one-third, 30.8 percent, of the respondents said that they helped design the technical communication course(s) in response to need. Too, 20.2 percent volunteered to teach technical communication. Thus, 51 percent of the responses reflect initiative on the part of the teacher. This initiative can be linked to the later section on Professional Attitudes, in which teachers indicate that they are highly qualified to teach technical communication and that they are highly committed to teaching technical communication.

In contrast, 24.1 percent of the respondents began teaching technical communication because they were assigned, 19.6 percent began as a condition of initial employment, and 3.0 percent began as a teaching assistant in graduate school.

Of particular interest is the response of part-timers. A sizable percentage helped to design the course (19.2 percent of responses) and volunteered to teach the course (also 19.2 percent of responses). At the same time that there is a nationwide cry against overuse of part-timers--primarily because of their lack of participation in curriculum design and participation in departmental planning--we see that part-time faculty in teaching technical communication seem to be in the mainstream not only of these activities but also in the most helpful kinds of preparation for teaching technical communication (discussed below).

HELPFUL KINDS OF PREPARATION

Our 1984-85 research determined that 80 percent of the two-year colleges offering technical communication had been offering technical communication for 15 or fewer years (Pickett and Angelo, ERIC). If, as the present research shows, two-year college technical communication teachers have been in the classroom a mean of 17 years, then we can speculate that a vast majority of these teachers did not receive in the traditional English curriculum formal training before beginning to teach technical communication. The questions then arise: What kind of

preparation do these teachers have? What various kinds of preparation have they found most helpful in teaching technical communication?

To gather information on formal and informal training for teaching technical communication, we asked respondents to rate their perception of the helpfulness of any of the applicable experiences listed on a scale of 1 to 6 with 1 as lowest (little help) and 6 as highest (much help). There were two scales for each question: one scale to mark degree of helpfulness when the respondent began teaching and another scale to mark degree of helpfulness now. Since 3.5 is the midpoint of a scale of 1 to 6, we considered responses of 3 and below as negative and responses of 4 to 6 as positive.

As Table 10 indicates, the mean responses in all categories of formal training in teaching technical communication were less than 3.5 on the scale. The categories included (a) 3-5 day institute/workshop/seminar, (b) college courses, and (c) internship. The immediate and surprising conclusion is that teachers did not rate formal training as very helpful. Approximately one half of the sample reported participating in the above activities; this figure underscores the fact that many technical communication teachers have no formal training in the teaching of technical communication. (As explained earlier under the heading "Majors," only 11 percent of the teachers in our sample have considerable formal preparation in the teaching of writing.)

In general, respondents marked all categories of informal preparation as more helpful than the categories of formal preparation. The highest mean response was for "reading professional materials" (4.78--beginning; 4.88--now).⁶ Other preparatory experiences marked as most helpful, in descending order of their mean, include interaction with professionals in business/industry/government, interaction with technical communication teachers, and professional meetings. The means of professional workshops and of inservice workshops are less than 3.5, indicating that respondents perceived these as less helpful to classroom application.

Among full-timers, the mean responses for all categories increased from "Beginning" to "Now," suggesting that experience increases the perception of importance of all sources of material. Moreover, the percentages of respondents rating all the items in the informal section is surprisingly high. These figures suggest both a high degree of initiative in seeking professional preparation and a ready availability of such activities and materials.

Respondents are more likely to perceive as beneficial those activities that they initiate and those activities that are somewhat less structured than formal preparatory experiences.

HELPFUL KINDS OF EXPERIENCE

A major section of our questionnaire concerned the respondent's teaching and non-teaching work experience. Again, respondents were asked to rank on a scale (1 to 6, with 6 the highest) the helpfulness of various categories of work experience in teaching technical communication. Analysis of the data reveals that both teaching experience and non-teaching work experience are perceived as helpful.

Teaching Experience

Among the various types of teaching experience (other fields; other levels, including four-year insitution, secondary, and elementary), respondents rated teaching in other fields as most helpful, with a mean of 4.73. Little change was recorded in perception of helpfulness between "Beginning" and "Now."

Respondents rated experience in teaching at four-year colleges fairly high (3.95 for full-time "Beginning" and 4.77 for part-time "Beginning"). With approximately 40 percent of the sample marking this category (see Table 11), we conclude both that this experience is considered valuable and that a significant number of two-year technical communication teachers have had this experience.

One surprising result occurred in the whole category of teaching experience. Approximately forty percent of respondents marked secondary experience, and over twenty percent marked elementary experience. Although neither of these received the helpfulness rating of college experience, it is nonetheless surprising that this many technical communication teachers have taught at the elementary level.

Overall, it is clear that respondents consider most teaching experience, regardless of subject or level, to be helpful in teaching technical communication.

Non-Teaching Work Experience

Both groups of teachers consider work experience in business and industry to be very helpful in teaching technical communication. Mean survey responses to all kinds of non-teaching work experience are very high, with the highest mean occurring in the category of business/industry. The mean of the approximate 40 percent of full-timers responding is 5.25 in the "Now" category; with 50 percent of part-timers responding, the mean is 5.54.

Responses verifying the helpfulness of government, military, and other work experience occurred among both groups, as Table 11 shows.

Again, the mean rating among all groups was well above the 3.5 neutral response level. Part-timers gave particularly high ratings (from 5.00 to 6.00) in the "Now" column of government, military and other; however, since the number of responses to these categories was very small (1 to 7 persons), conclusions drawn from these data would be invalid.

Since such high value is given to experience in the workplace, Question 9 of our survey, concerning whether the respondent had worked as a technical writer, may be an important kind of experience to examine. As indicated below, a large number of full-time technical communication teachers have worked as technical writers, but an even higher percentage of part-timers have.

	ALL	FULL-TIME	PART-TIME
Experience as a technical writer	41.4% (55)	37.8% (42)	59.1% (13)

(In parentheses are numbers of respondents.)

An examination of the kinds of writing experiences these persons described (Question 9b on the survey) did not reveal a pattern to explain the difference between the writing experience of part-timers and full-timers. More research is needed here.

PROFESSIONAL APPLICATION OF TECHNICAL COMMUNICATION

Technical communication teachers at all levels serve as editors, writers, or consultants for business and industry. Also, many teachers give presentations at professional meetings or publish in professional journals.

Participation in these service applications both inside and outside the education community varies among individuals according to their own initiative, their compensation, and the restrictions or requirements imposed on such service by their colleges.

Two-year college teachers, since they do not ordinarily have the pressure to publish as do four-year colleges teachers, may not participate in these activities regularly. To determine the frequency of participation in these activities and to see if any pattern of involvement would emerge, we included in the questionnaire a section on these activities. Respondents were asked to mark frequency on a 1 to 6 scale, with 6 the highest. Table 12 shows a rather low mean response of 2.23 among full-time teachers in the category of serving as editors, writers, or consultants with pay. This mean contrasts sharply with the higher mean, 4.05, of part-time respondents.

No data are available to explain conclusively the difference of frequency. However, about 20 percent of full-time respondents indicated that their institutions imposed restrictions on consulting and writing for pay. Primarily, restrictions require that such activities not occur during school hours or without prior approval. Some colleges, however, do impose strict limitations on earnings from consulting.

Likewise, part-timers reported a slightly higher mean of participation in other professional applications of technical communication, including editing/writing/consulting without pay, giving presentations at professional meetings, and publishing articles. But all means in these categories fell far below 3.5, implying infrequent participation.

PARTICIPATION IN RELATED DEVELOPMENT ACTIVITIES

Another section of the questionnaire concerned participation in other activities related to professional development of technical communication teachers. These categories of participation are all somewhat unstructured and informal, requiring a degree of self-initiation from teachers.

"Discussion of technical communication with teachers in technical subject areas" received the highest mean response of frequency (3.90 for all), as shown in Table 13. Although this mean does not indicate a high frequency, it demonstrates that a large number of teachers discuss professional matters with teachers in technical areas in their colleges.

Also receiving a positive mean response (3.54) was "Discussion of technical communication with professionals in business and industry." Again this figure shows a slightly positive frequency. Lower frequency responses were given to the other two categories of participation: attendance at technical communication sessions at professional meetings (3.29) and attendance at craft/advisory committee meetings of technical departments (2.06).

Although these four related activities did not receive high ratings of frequency, their ratings were nonetheless somewhat higher than those recorded for participation in writing/editing/consulting and publishing, discussed in the previous section. These data suggest again that the traditional criteria for evaluating professional development, specifically publications and professional presentations, may not as accurately predict teacher development as does active participation in other development activities.

Also, these data suggest that two-year college technical communication teachers typically initiate numerous development activities that bear directly on their own knowledge and competence in the field.

PROFESSIONAL ATTITUDES

To try to determine the qualifications and the commitment of two-year-college teachers to technical communication, we asked teachers to evaluate themselves on qualifications as a teacher and as a teacher of technical communication. We also asked teachers to evaluate themselves as to their commitment to teaching and to teaching technical communication.

Qualifications

Overall, teachers perceive themselves to be very highly qualified as teachers but only mildly qualified as teachers of technical communication (5.54 versus 4.44, on a scale of 1 to 6 with 6 the highest), as shown in Table 14. Of particular interest is the finding that part-time teachers perceive themselves as more highly qualified to teach technical communication than full-time teachers perceive themselves to be (5.00 versus 4.34).

As further shown in Table 14, in the breakout of ratings, no teacher gave self a rating below 3 on qualifications as a teacher. However, on qualifications as a teacher of technical communication, there were several very low ratings, particularly among full-time teachers.

Commitment

Teachers perceive themselves as very highly committed to teaching and highly committed to teaching technical communication (5.54 and 4.99, respectively, on a scale of 1 to 6 with 6 the highest rating), as depicted in Table 15.

Full-time teachers perceive themselves as more committed to teaching than to teaching technical communication (5.59 versus 4.90). Conversely, part-time teachers consider themselves just as highly committed to teaching technical communication as to teaching (5.50 versus 5.23).

The self-perception of part-time teachers as to their high qualifications and high commitment concerning teaching technical communication is undoubtedly related to the part-timers' non-teaching work experience in business, industry, and government, their interaction with professionals in these areas, and their consulting experience.

SUMMARY OF FINDINGS AND CONCLUSIONS

Summary

We analyzed data from 136 technical communication teachers from our sample of 87 two-year colleges in the United States. For our study, we focused on the teachers of technical communication in two-year colleges, including demographic characteristics, professional status, preparation, experience, and self-perceptions of qualifications and commitment. From selected data analyses, we present the following summary statements concerning teachers of technical communication in two-year colleges:

- A slight majority, 55 percent, of the respondents teach in an institution with a semester system, 44 percent in an institution with a quarter system, and 1 percent in an institution with a trimester system.
- In our sample, 84 percent of the teachers are full-time and 16 percent are part-time teachers.
- At the graduate level, 4 percent of respondents have a major in technical writing; another 7 percent have graduate majors in rhetoric, composition, or literature/composition. Thus, 11 percent of the sample have had considerable formal preparation in the teaching of writing.
- The highest degree of most teachers, 76 percent, is a master's; 22 percent have a doctorate, while 2 percent have only a bachelor's degree.
- The average salary for full-time teachers of technical communication is \$24,447.
- The average age of teachers is 46 years; there is an equal number of males and females; and 88 percent are Caucasian.
- Among the full-time respondents who teach in an institution with a rank system, over half, 52 percent, are full professors or assistant professors.
- Of the full-time teachers in institutions with a tenure system, 81 percent are tenured.
- For full-time teachers the average number of years of teaching is 17, the number of years teaching technical communication is 8, and the number of years at the present college is 11.
- Full-time technical communication teachers report heavy work loads, with a mean of 101 students per term, 4.6 classes per term, 15.7 hours per term, and, for some, considerable non-teaching duties.
- About half, 51 percent, of the respondents began teaching technical communication because they wanted to; either they helped design the course or they volunteered to teach it.
- Both full-time and part-time teachers consider informal preparation more helpful than formal preparation.
- Reading professional materials is perceived as the most helpful kind of preparation for the teaching of technical communication.

- Technical communication teachers perceive teaching in other fields to be the most helpful kind of teaching experience and work in business/industry as the most helpful kind of non-teaching experience.
- About forty percent of all two-year college technical communication teachers have experience as professional writers.
- Two-year college technical communication teachers are more frequently involved in informal, personally-initiated professional development activities than they are in publishing, editing, and giving presentations at professional meetings.
- Overall, technical communication teachers perceive themselves to be very highly qualified as teachers but only mildly qualified as teachers of technical communication. Part-time teachers perceive themselves to be more highly qualified to teach technical communication than full-time teachers perceive themselves to be.
- Technical communication teachers, as a group, perceive themselves as very highly committed to teaching and highly committed to teaching technical communication. Part-time teachers, however, perceive themselves to be just as highly committed to teaching technical communication as to teaching.

Conclusions

From analysis of data in our sample, we conclude that teachers of technical communication in two-year colleges:

- Earn considerably lower salaries than their colleagues in other disciplines.
- Have extensive classroom experience.
- Have heavy work loads with numerous demands on their time and expertise.
- Consider informal preparation more helpful in their teaching than formal preparation.
- Although viewing all post-secondary teaching experience as helpful, view experience in the workplace as even more helpful in their teaching.
- Infrequently participate in professional applications of technical communication (publishing, editing, consulting, giving presentations at professional meetings).
- Frequently participate in informal development activities.
- Include part-time teachers, who--because of their teaching experience, preparation in workplace, and commitment to teaching technical communication--are a valuable asset to their institution and to the field of technical communication.
- Overall, seem to be hard-working, dedicated persons who are qualified and who are committed to both teaching and the teaching of technical communication. Because of their middle age, tenure and rank status, years of work experience, and self-initiated development activities, the teaching of technical communication at the two-year-college level is apparently in good hands.

NOTES

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Progress reports on this research have been presented at the annual convention of the Conference on College Composition and Communication, Atlanta, GA, March 1987; the Gulf Coast Conference on the Teaching of Writing, Point Clear, AL, June 1987; and the annual SCETC Institute in Technical Communication, Raymond Campus, Hinds Junior College District, MS, June 1987.

2. Results of the 1984-85 study are available in four sources: (1) "Teaching Technical Communication in the Two-Year College: A Status Report," Proceedings in Technical Writing and Business Communication: The Conference on College Composition And Communication, Minneapolis--1985. Ed. Douglas M. Catron. Ames IA: Iowa State University. (2) ERIC Clearinghouse on Reading and Communication Skills, NCTE, ED 261 409. (3) "Technical Communication in the Two-Year College: A Survey," Teaching English in the Two-Year College (Spring 1986). (4) "Technical Communication Programs in Two-Year Colleges: An Update," The Technical Writing Teacher (Spring 1986).

3. In our earlier study (see ERIC ED 261 409), we categorized the colleges according to (a) junior colleges/transfer emphasis, (b) technical institutes, and (c) community colleges.

4. The 100-member sample represents 17.7 percent of the population of the 565 institutions where technical communication is taught, as established by our 1984-85 study. The 87 percent sample response represents 15.4 percent of the 565-member population.

5. This figure can be misleading; it simply refers to a person count and tells us nothing about the percentage of total courses taught.

6. The question did not distinguish between professional materials in technical communication and professional materials in technical fields.

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Table 1. Majors--Undergraduate, Master's, Doctoral Levels--of Respondents.
(Numbers of respondents are given in parentheses.)

MAJOR	ALL			FULL-TIME			PART-TIME		
	Undergrad	Master's	Doctoral	Undergrad	Master's	Doctoral	Undergrad	Master's	Doctoral
English ^a	78.5% (106)	83.8% (109)	96.6% (29)	80.5% (91)	82.5% (90) ^e	96.4% (27) ^f	68.1% (15)	90.4% (19) ^h	100% (2)
English related ^b	4.4% (6)	3.8% (5)	0	3.5% (4)	4.5% (5)	0	9.0% (2)	0	0
Business areas ^c	3.7% (5)	3.8% (5)	0	3.5% (4)	3.6% (4)	0	4.5% (1)	4.7% (1)	0
Other ^d	13.3% (18)	8.4% (11)	3.3% (1)	12.3% (14)	9.1% (10)	3.5% (1) ^g	18.1% (4)	4.7% (1)	0
	99.9% ^a (135)	99.8% ^a (130)	99.9% (30)	99.8% ^a (113)	99.7% ^a (109)	99.9% ^a (28)	99.7% ^a (22)	99.8% ^a (21)	100% (2)

*Because of rounding, percentages do not total 100%.

^aIncludes English, literature, English education, rhetoric, linguistics, composition, and humanities and persons listing multiple majors including English.

^bIncludes communication, speech, journalism, reading, foreign language, American studies.

^cIncludes business, economics, secretarial science.

^dIncludes history, political science, philosophy, biology, fish & wildlife, math, engineering, physics, crime, nutrition, Christian education, education, counseling.

^eIncludes 1 major in technical writing, 2 in rhetoric, 2 in composition, and 1 in literature/composition.

^fIncludes 1 specialization in technical writing, 3 in rhetoric, 1 in composition, and 1 in literature/composition.

^gSpecialization in curriculum.

^hIncludes 3 specializations in technical writing.

Table 2. Highest Degree of Respondents. (Numbers of respondents are given in parentheses.)

DEGREE	ALL	FULL-TIME	PART-TIME
Bachelor's	2.2% (3)	1.7% (2)	4.5% (1)
Master's	75.7% (103)	73.6% (84) ^a	86.3% (19) ^b
Doctoral	22.0% (30)	24.5% (28)	9.0% (2)
	<u>99.9%[*] (136)</u>	<u>99.8%[*] (114)</u>	<u>99.8%[*] (22)</u>

* Because of rounding, percentages do not total 100%.

^a Includes 2 education specialist degrees and 7 ABD's.

^b Includes 2 ABD's.

Table 3. Gender of Teachers. (Numbers of respondents are given in parentheses.)

GENDER	ALL	FULL-TIME	PART-TIME
Male	50.3% (68)	49.5% (56)	54.5% (12)
Female	49.6% (67)	50.4% (57)	45.4% (10)
	<u>99.9%[*] (135)</u>	<u>99.9%[*] (113)</u>	<u>99.9%[*] (22)</u>

*Because of rounding, percentages do not total 100%.

Table 4. Race of Teachers. (Numbers of respondents are given in parentheses.)

RACE	ALL	FULL-TIME	PART-TIME
Caucasian	88.2% (120)	87.7% (100)	90.9% (20)
Other ¹	3.6% (5)	4.3% (5)	0
No response	8.0% (11)	7.8% (9)	9.0% (2)
	<u>99.8%* (136)</u>	<u>99.8%* (114)</u>	<u>99.9%* (22)</u>

*Because of rounding, percentages do not-total 100%.

¹Other includes three blacks, an Asian American, and an Indian (Asian).

Table 5. Rank of Full-Time Teachers. (Numbers of respondents are given in parentheses.)

Institution does not have rank	31.8%	(36)
Institution has rank	68.2%	(77)
	100.0%	(113)
Professor	18.1%	(14)
Associate professor	33.7%	(26)
Assistant professor	15.5%	(12)
Instructor	28.5%	(22)
Lecturer	-	(0)
Other ¹	3.8%	(3)
	99.6%*	(77)

*Because of rounding, the percentage does not total 100%.

¹Other includes Division Chair, Master Instructor, and Department Head.

Table 6. Tenure Status of Full-Time Teachers. (Numbers of respondents are given in parentheses.)

Institution does not have tenure	32.4% (36)
Institution has tenure	67.5% (75)
	99.9%* (111)
Tenured	81.3% (61)
Non-tenured	12.0% (9)
Non-tenure track position	1.3% (1)
Other ¹	5.3% (4)
	99.9%* (75)

*Because of rounding, percentages do not total 100%.

¹Other includes academic administrator, full-time temporary, 5-year contract, multi-year contract.

Table 7. Mean and Range of Teaching Experience

TYPE OF EXPERIENCE	FULL-TIME		PART-TIME	
	MEAN	RANGE	MEAN	RANGE
Years of teaching	17.1	2-34	11.8	1-27
Years teaching technical communication	7.8	1-24	4.6	0-10
Years at present college	11.2	1-24	6.1	1-20

Table 8. Mean and Range of Work Load of Teachers

FUNCTION OF WORK LOAD	FULL-TIME		PART-TIME	
	MEAN	RANGE	MEAN	RANGE
Different technical communication courses taught	1.5	1-7	1.5	1-4
Number classes per term	4.6	1-8	2.8	1-8
Number students per term	101.1	15-250	59.5	15-150
Number preparations per term	3.2	1-6	2.3	1-4

Table 9. Circumstances Under Which Respondents Began Teaching Technical Communication.
(In parentheses are numbers of responses to the item. A person could mark more than one item.)

CIRCUMSTANCE	ALL	FULL-TIME	PART-TIME
Helped design TC course in response to need	30.8% (55)	32.8% (50)	19.2% (5)
Assigned	24.1% (43)	23.0% (35)	30.7% (8)
Volunteered	20.2% (36)	20.3% (31)	19.2% (5)
Condition of initial employment	19.6% (35)	19.0% (29)	23.0% (6)
As a graduate-student teaching assistant	5.0% (9)	4.6% (7)	7.6% (2)
	<u>99.7%* (178)</u>	<u>99.7%* (152)</u>	<u>99.7%* (26)</u>

Total number of respondents = 134; full-time = 112, part-time = 22.

*Because of rounding, percentages do not total 100%.

Table 10. Mean Rating of Helpful Kinds of Preparation - Beginning and Now - In Teaching Technical Writing, on a Scale of 1 to 6 with 6 the Highest. (Numbers in parentheses are the percentages of respondents who rated the items.)

KIND OF PREPARATION	ALL (N = 136)		FULL-TIME (N = 114)		PART-TIME (N = 22)	
	BEGINNING	NOW	BEGINNING	NOW	BEGINNING	NOW
Formal training in teaching technical writing:						
3 to 5 day institute/workshop/seminar	3.28 (49)	3.48 (47)	3.48 (49)	3.53 (49)	2.20 (45)	2.77 (40)
College courses	2.79 (57)	2.87 (52)	2.79 (55)	2.72 (50)	2.80 (68)	3.53 (59)
Internship	2.60 (21)	2.68 (21)	2.60 (17)	2.91 (20)	2.62 (36)	2.40 (22)
Informal preparation for teaching technical writing:						
Reading; professional materials	4.78 (85)	4.88 (79)	4.75 (85)	4.93 (79)	4.68 (86)	4.64 (77)
Interaction with professionals in business/industry/government	4.51 (76)	4.59 (75)	4.53 (72)	4.67 (72)	4.45 (90)	4.73 (86)
Interaction with TC teachers	4.19 (79)	4.32 (76)	4.22 (78)	4.43 (76)	4.05 (81)	3.76 (77)
Professional meetings	3.32 (49)	3.76 (59)	3.36 (48)	3.75 (60)	3.16 (54)	3.81 (50)
Professional workshops	3.23 (46)	3.78 (51)	3.28 (45)	3.72 (50)	3.00 (50)	4.09 (50)
Inservice workshops	2.95 (33)	3.15 (38)	2.94 (32)	3.02 (38)	3.00 (36)	4.00 (31)

Table 11. Mean Rating of Helpful Kinds of Experience--Beginning and Now--in Teaching Technical Writing, on a Scale of 1 to 6 with 6 the Highest. (Numbers in parentheses are the percentages of respondents who rated the items.)

KIND OF EXPERIENCE	ALL		FULL-TIME		PART-TIME	
	BEGINNING	NOW	BEGINNING	NOW	BEGINNING	NOW
Teaching experience, other fields	4.73 (56)	4.54 (53)	4.75 (54)	4.51 (52)	4.64 (63)	4.64 (63)
Teaching experience, other levels:						
4-year institution	4.08 (41)	4.25 (40)	3.95 (41)	4.28 (40)	4.77 (41)	4.10 (41)
Secondary	3.54 (39)	3.27 (32)	3.54 (40)	3.20 (34)	3.57 (31)	3.80 (22)
Elementary	2.62 (21)	2.86 (16)	2.59 (23)	2.88 (16)	3.00 (9)	3.66 (14)
Non-teaching work experience:						
Business/Industry	4.67 (58)	5.30 (43)	4.56 (58)	5.25 (39)	5.25 (54)	5.54 (50)
Government	3.96 (24)	4.53 (21)	3.79 (21)	4.14 (18)	4.50 (36)	5.71 (31)
Military	3.93 (21)	3.78 (17)	3.96 (22)	3.60 (19)	3.66 (13)	6.00 (4)
Other ¹	3.81 (12)	4.50 (10)	3.92 (12)	4.46 (11)	3.00 (9)	5.00 (4)

N = 136

¹Other includes writing, editing, publishing, consulting in various professions.

Table 12. Frequency of Professional Application of Technical Communication, on a Scale of 1 to 6 with 6 the Highest.

ACTIVITY	F R E Q U E N C Y		
	ALL (N=136)	FULL-TIME (N=114)	PART-TIME (N=22)
Serving as an editor, writer or consultant, WITH pay	2.52	2.23	4.05
Serving as an editor, writer or consultant WITHOUT pay	2.39	2.30	2.94
Giving presentations on technical communication at professional meetings	1.84	1.79	2.11
Publishing articles on technical communication in professional publications	1.28	1.25	1.50

Table 13. Frequency of Participation in Related Activities, on a Scale of 1 to 6 with 6 the Highest

ACTIVITY	F R E Q U E N C Y		
	ALL (N=136)	FULL-TIME (N=114)	PART-TIME (N=22)
Discussion of technical communication with teachers in technical subject areas	3.90	3.96	3.55
Discussion of technical communication with professionals in business and industry	3.54	3.41	4.19
Attendance at technical communication sessions at professional meetings	3.29	3.40	2.66
Attendance at craft/advisory committee meetings of technical departments	2.06	2.01	2.36

Table 14. Qualifications, as Self-Perceived, on a Scale of 1 to 6 with 6 the Highest Rating. (In parentheses are numbers of respondents.)

CHARACTERISTIC		ALL	FULL-TIME	PART-TIME
Qualifications as a teacher		5.54	5.60	5.19
Qualifications as a teacher of technical communication		4.44	4.34	5.00

Rating	ALL		FULL-TIME		PART-TIME	
	As a teacher	As a teacher of TC	As a teacher	As a teacher of TC	As a teacher	As a teacher of TC
6	62.2% (84)	20.1% (27)	64.0% (73)	15.0% (17)	52.3% (11)	47.6% (10)
5	30.3% (41)	32.0% (43)	32.4% (37)	33.6% (38)	19.0% (4)	23.8% (5)
4	6.6% (9)	30.5% (41)	3.5% (4)	32.7% (37)	23.8% (5)	19.0% (4)
3	.7% (1)	10.4% (14)	0	11.5% (13)	4.7% (1)	4.7% (1)
2	0	2.9% (4)	0	3.5% (4)	0	0
1	0	3.7% (5)	0	3.5% (4)	0	4.7% (1)
	99.8% (135)	100.6% ^a (134)	99.9% ^a (114)	99.8% ^a (113)	99.8% ^a (21)	99.8% ^a (21)

^aBecause of rounding, percentages do not total 100%.

Table 15. Commitment, as Self-Perceived, on a Scale of 1 to 6 with 6 with Highest Rating. (In parentheses are numbers of respondents.)

CHARACTERISTIC	ALL		FULL-TIME		PART-TIME	
Commitment to teaching	5.54		5.59		5.23	
Commitment to teaching technical communication	4.99		4.90		5.50	

Rating	ALL		FULL-TIME		PART-TIME	
	As a teacher	As a teacher of TC	As a teacher	As a teacher of TC	As a teacher	As a teacher of TC
6	68.8% (93)	46.5% (61)	70.1% (80)	41.4% (46)	61.9% (13)	75.0% (15)
5	20.7% (28)	25.1% (33)	21.9% (25)	27.9% (31)	14.2% (3)	10.0% (2)
4	7.4% (10)	16.0% (21)	6.1% (7)	18.0% (20)	14.2% (3)	5.0% (1)
3	1.4% (2)	7.6% (10)	.8% (1)	7.2% (8)	4.7% (1)	10.0% (2)
2	1.4% (2)	2.2% (3)	.8% (1)	2.7% (3)	4.7% (1)	0
1	0	2.2% (3)	0	2.7% (3)	0	0
	99.7%* (135)	99.6%* (131)	99.7%* (114)	99.7%* (111)	99.7%* (21)	100.0% (20)

*Because of rounding, percentages do not total 100%.

APPENDIX

SURVEY: TEACHERS OF TECHNICAL WRITING IN TWO-YEAR COLLEGES

Name _____ (Please print)
 College _____
 College address _____
 City/State/Zip _____ Telephone () _____

Your answers will be held in strict confidence. The reporting of the results of this survey will in no way identify individuals or specific institutions. Additional comments should be written on a separate sheet and attached.

1. Your institution has __semester__ quarter __trimester__ other system.
2. _____ Total number of years of classroom teaching experience a
 _____ Total number of years teaching technical writing b
 _____ Total number of years at this college c
3. Courses other than technical writing that you usually teach in a calendar year

4. Your work load
 _____ total number of different technical writing courses you teach a
 _____ typical number of technical writing sections you teach per term; average b
 _____ number of students per section _____
 _____ total number of classes you teach per term c
 _____ total number of students you teach per term d
 _____ total number of different preparations per term e
 _____ percentage of work load in non-teaching duties; specify other duties and f
 _____ percentage of work load _____
5. Baccalaureate major _____, minor _____ Master's major _____, minor _____
6. Highest degree earned _____, major _____, area of specialization _____
7. Circumstances under which you began teaching technical writing:
 _____ as a graduate-student teaching assistant a
 _____ condition of initial employment b
 _____ helped design technical writing course in response to need c
 _____ assigned d
 _____ volunteered e
 _____ other; specify _____ f
8. Rate the following as to their helpfulness to you when you were beginning to teach technical writing and their helpfulness to you now. Please circle the appropriate number. For those items that do not apply, circle the number 7.

Formal training in teaching technical writing:

Formal training in teaching technical writing:	BEGINNING						NOW										
	little	much				N	little	much				N					
	help	1	2	3	4	5	6	7	help	1	2	3		4	5	6	7
- college courses																	a
- 3 to 5 day institute/workshop/seminar																	b
- internship																	c
- other, specify _____																	d

Informal preparation for teaching technical writing:

Informal preparation for teaching technical writing:	BEGINNING						NOW								
	little		much		N		little		much		N				
	help		help		A		help		help		A				
- in-service workshops	1	2	3	4	5	6	7	1	2	3	4	5	6	7	e
- professional workshops	1	2	3	4	5	6	7	1	2	3	4	5	6	7	f
- professional meetings	1	2	3	4	5	6	7	1	2	3	4	5	6	7	g
- reading; professional materials	1	2	3	4	5	6	7	1	2	3	4	5	6	7	h
- interaction with technical writing teachers	1	2	3	4	5	6	7	1	2	3	4	5	6	7	i
- interaction with professionals in business/industry/government	1	2	3	4	5	6	7	1	2	3	4	5	6	7	j

Teaching experience:	BEGINNING						N	NOW						N		
	little help		much help					little help		much help						
- other levels: elementary	1	2	3	4	5	6	7		1	2	3	4	5	6	7	k
secondary	1	2	3	4	5	6	7		1	2	3	4	5	6	7	l
four-year institution	1	2	3	4	5	6	7		1	2	3	4	5	6	7	m
- other fields (science, technology, literature, journalism; industry, military; etc.)	1	2	3	4	5	6	7		1	2	3	4	5	6	7	n
Non-teaching work experience:																
- business/industry	1	2	3	4	5	6	7		1	2	3	4	5	6	7	o
- government	1	2	3	4	5	6	7		1	2	3	4	5	6	7	p
- military	1	2	3	4	5	6	7		1	2	3	4	5	6	7	q
- other, specify _____	1	2	3	4	5	6	7		1	2	3	4	5	6	7	r

Comments:

9. Have you had work experience as a professional technical writer? no yes. If so, identify the kind of experience and the number of years.

10. How often do you do the following? never frequently NA

- attend craft/advisory committee meetings of technical departments	1	2	3	4	5	6	7	s
- discuss technical writing with teachers in technical subject areas	1	2	3	4	5	6	7	t
- discuss technical writing with professionals in business and industry	1	2	3	4	5	6	7	u
- attend technical writing sessions at professional meetings	1	2	3	4	5	6	7	v
- give presentations on technical writing at professional meetings	1	2	3	4	5	6	7	w
- publish articles on technical writing in professional publications	1	2	3	4	5	6	7	x
- serve as an editor, writer or consultant in technical writing, WITHOUT pay	1	2	3	4	5	6	7	y
- serve as an editor, writer or consultant, WITH pay	1	2	3	4	5	6	7	z

11. Have you published one or more books on technical writing? no yes

12. Does your institution have restrictions on consulting for pay (maximum earnings, prior approval, number of days, etc.)? no yes
If so, specify _____

13. How qualified do you regard yourself?

	little	much				
- as a teacher	1	2	3	4	5	6
- as a teacher of technical writing	1	2	3	4	5	6

14. How committed are you?

	little	much				
- to teaching	1	2	3	4	5	6
- to teaching technical writing	1	2	3	4	5	6

15. Your rank

a <u>institution</u>	b <u>professor</u>	e <u>instructor</u>
does not have	c <u>associate professor</u>	f <u>lecturer</u>
rank	d <u>assistant professor</u>	g <u>other, specify</u> _____

16. Your tenure status

a <u>institution does not</u>	c <u>non-tenured</u>
have tenure	d <u>non-tenure track position</u>
b <u>tenured</u>	e <u>other, specify</u> _____

17. Date of birth _____ 18. Sex _____ 19. Race _____ 20. Contract salary _____ for _____ months

21. Full-time part-time teacher

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